

We claim:

1. A particle analyzer comprising means for acquiring particles of cellular material from a living body, means for labeling said particles of cellular material from said living body to produce labeled particles, means for analyzing said labeled particles to produce analyzed and labeled particles, means for sorting said analyzed and labeled particles to produce labeled and sorted particles, and means for maintaining a portion of said analyzed and labeled particles in a viable state to produce labeled and viable particles.
2. The particle analyzer as recited in claim 1, further comprising means for modifying a portion of said analyzed and labeled particles, thereby producing modified and labeled particles..
3. The particle analyzer as recited in claim 2, further comprising means for returning said modified and labeled particles to said living body.
4. The particle analyzer as recited in claim 3, wherein said bodily fluid is blood.
5. The particle analyzer as recited in claim 5, wherein said means for labeling said particles of cellular material is a dye.
6. The particle analyzer as recited in claim 5, wherein said dye is a cell membrane permeant, red-excited dye.
7. The particle analyzer as recited in claim 6, wherein said means of maintaining a portion of said analyzed and labeled particles in a viable state comprises a reservoir.
8. The particle analyzer as recited in claim 7, wherein said reservoir is comprised of a permeable membrane.
9. The particle analyzer as recited in claim 8, further comprising means for removing said a portion of said analyzed and labeled particles from said reservoir.
10. A particle analyzer comprising means for acquiring particles of cellular material from a

living body, means for labeling said particles of cellular material from a living body to produce labeled particles, means for analyzing said labeled particles to produce analyzed and labeled particles, means for sorting said analyzed and labeled particles to produce labeled and sorted particles, and means for modifying a first portion of said analyzed and labeled particles to produce labeled and modified particles.

11. The particle analyzer as recited in claim 10, further comprising means for maintaining a portion of said analyzed and labeled particles in a viable state to produce labeled and viable particles.

12. The particle analyzer as recited in claim 10, further comprising means for returning said modified and labeled particles to said living body.

13. The particle analyzer as recited in claim 11, further comprising means for returning said modified and labeled particles to said living body.

14. The particle analyzer as recited in claim 1, further comprising a pump hydraulically connected to said particle analyzer.

15. The particle analyzer as recited in claim 14, wherein said pump is disposed within said living body.

16. The particle analyzer as recited in claim 15, further comprising means for producing electrical power upon the actuation of said pump.

17. The particle analyzer as recited in claim 1, wherein said particle analyzer is disposed within said living body.

18. The particle analyzer as recited in claim 1, wherein said particle analyzer weighs less than about 3 pounds.